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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,920	12/13/2001	Linh N. Pham	DP305717 (65899-0135)	2231
22851	7590	05/23/2005	EXAMINER	
DELPHI TECHNOLOGIES, INC.			GRIER, LAURA A	
M/C 480-410-202			ART UNIT	
PO BOX 5052			PAPER NUMBER	
TROY, MI 48007			2644	

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/021,920

**Applicant(s)**

PHAM ET AL.

**Examiner**

Laura A. Grier

**Art Unit**

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/8/03</u> . | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5-11, 14-16, 18-21, and 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Milne et al, U. S. Patent 5983087.

Regarding claim 1, Milne et al. (herein, Milne) discloses distributed signal processing for vehicle audio systems. Milne inherently discloses a radio controller as evident by the radio (10); and a host computer (24) which provides various operating parameters to the audio system of various vehicles, which reads a data table accessible by a radio controller – figure 1, col. 1, lines 47-67, col. 2, lines 1-3 and col. 4, lines 33-41.

Regarding claim 2, Milne discloses everything claimed as applied above (see claim 1). Milne further discloses parameters such as equalization coefficients, volume adjusting parameters, loudness coefficient and speaker gains, (col. 1, lines 65-col. 2, lines 1-3), which indicates the claimed limitation.

Regarding claim 5, Milne discloses everything claimed as applied above (see claim 1). Milne further discloses parameters or setting corresponding to one's personal listening preferences (col 4, lines 51-61).

Regarding claim 6, Milne discloses everything claimed as applied above (see claim 1). Milne further discloses the audio output by the speakers (22) based on the stored parameters necessary for the respective vehicle.

Regarding claim 7, Milne discloses everything claimed as applied above (see claim 1). Milne further discloses a library of vehicle profiles with the corresponding audio system parameters stored, therein (col. 4, lines 34-50), which reads on the claimed limitation.

Regarding claim 8, Milne discloses everything claimed as applied above (see claim 1). Milne further discloses a transmitting the parameters for the audio system of the vehicle from the host computer to the radio which includes a microprocessor via a bus (col. 2, lines 46-59, col. 4, lines 34-50 and figure 2), which reads on the claimed limitation.

Regarding claim 9, Milne discloses everything claimed as applied above (see claim 8). Milne further discloses the audio output by the speakers (22) based on the stored parameters necessary for the respective vehicle.

Regarding claim 10, Milne discloses everything claimed as applied above (see claim 1). Milne further discloses a serial data bus connected to the host computer (24), which constitutes as an external diagnostic device (col. 4, lines 5-50), which reads on the claimed limitations.

Regarding claim 11, Milne discloses everything claimed as applied above (see claim 10). Milne further discloses the audio output by the speakers (22) based on the stored parameters necessary for the respective vehicle.

Regarding claim 14 and 18-19, Milne discloses distributed signal processing for vehicle audio systems. Milne inherently discloses a radio controller as evident by the radio (10); and a host computer (24) which provides various operating parameters to the audio system of various

vehicles, which reads a data table accessible by a radio controller – figure 1, col. 1, lines 47-67, col. 2, lines 1-3 and col. 4, lines 5-50), wherein the audio system outputs via the speakers (22) based upon the set parameters.

Regarding claim 15, Milne discloses everything claimed as applied above (see claim 14). Milne further discloses a serial data bus connected to the host computer (24), which constitutes as an external diagnostic device (col. 4, lines 5-50), which reads on the claimed limitations.

Regarding claim 16, Milne discloses everything claimed as applied above (see claim 14). Milne further discloses a transmitting the parameters for the audio system of the vehicle from the host computer to the radio which includes a microprocessor via a bus (col. 2, lines 46-59, col. 4, lines 34-50 and figure 2), which reads on the claimed limitation.

Regarding claim 20, Milne discloses everything claimed as applied above (see claim 18). Milne further discloses a serial data bus connected to the host computer (24), which constitutes as an external diagnostic device (col. 4, lines 5-50), which reads on the claimed limitations.

Regarding claim 21, Milne discloses everything claimed as applied above (see claim 18). Milne further discloses a transmitting the parameters for the audio system of the vehicle from the host computer to the radio which includes a microprocessor via a bus (col. 2, lines 46-59, col. 4, lines 34-50 and figure 2), which reads on the claimed limitation.

Regarding claim 22, Milne discloses everything claimed as applied above (see claim 18). Milne discloses further adjustment may be may the sound (col. 4, lines 61-67), which indicates adjusting a least one signal-processing technique, therein.

Regarding claim 24, Milne discloses distributed signal processing for vehicle audio systems. Milne inherently discloses a radio controller as evident by the radio (10); and a host computer (24) which provides various operating parameters to the audio system of various vehicles, which indicates a memory accessible – figure 1, col. 1, lines 47-67, col. 2, lines 1-3 and col. 4, lines 5-50, the system is adaptable to be configured to perform based upon a listener preference (col. 4, lines 51-61); further adjustment may be may the sound (col. 4, lines 61-67), which indicates adjusting a least one signal-processing technique, therein.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Milne in view of the applicant's admitted prior art (AAPA).

Regarding claim 25, Milne discloses everything claimed as applied above (see claim 24). However, Milne fails to disclose roll-off. Regarding the signal processing technique, roll-off, the AAPA discloses roll-off as a typical techniques of receivers (page 1- last sentence – page 2, lines 1-2). Thus, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Milne by implementing roll-ff for the purpose reducing undesirable noise produced by the loudspeakers.

4. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milne.

Regarding claims 3-4, Milne discloses everything claimed as applied above (see claim 1). Even though, Milne discloses storing equalization coefficients, Milne fails to disclose equalization alignment settings being intended to override a default setting when equalizing. It is well known that various equalization parameters are needed to satisfy different audio outputs dependent upon the generating environment of the audio source and the listening environment along the audio equipment being used which may result in the audio being human speech or music (voice) or instruments. And, as well, it is common to override for an initial audio setting when the conditions and characteristic of the audio output changes. Thus, it would have been obvious to one of the ordinary skill to implement overriding initial equalization setting using other parameters so the audio system provides adequate compensation for optimizing the sound field with a vehicle.

5. Claims 12-13, 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milne.

Regarding claims 12-13, 17 and 22, Milne discloses everything claimed as applied above (see claim 1, 14, and 18, respectively). Even though, Milne inherently discloses a radio face plate as evident by the radio and thus would be in communication with radio controller, Milne fails to disclose a radio controller capable of receiving data indicative of the vehicle model from radio face plate. It is well known in the art to install or initialize devices based upon coupling components attached thereto. Thus, it would be obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Milne by providing a radio face plate


that would provide an indication the type/model of a vehicle when attached thereto for the purpose of adequately installation and operation of the audio system.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A. Grier whose telephone number is (571) 272-7518. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N. Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Laura A. Grier  
May 16, 2005